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# The value of a purposeful life: Sense of purpose predicts greater income and net worth



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#### ABSTRACT

Having a sense of purpose in life appears valuable across life domains, though it remains unclear whether purpose also provides financial value to individuals. The current study examined sense of purpose as a predictor of concurrent and longitudinal income and net worth levels, using two waves of the MIDUS sample of adults (N = 4660 across both assessments). Participants who reported a higher sense of purpose had higher levels of household income and net worth initially, and were more likely to increase on these financial outcomes over the nine years between assessments. Interaction tests suggested some evidence of age moderation, but gender did not appear to moderate the influence of purpose on economic outcomes.

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# 1. Introduction

Having a purpose in life entails having a clear long-term direction toward which to strive, that organizes one's behaviors and sense of self (McKnight & Kashdan, 2009; Ryff, 1989). The value of having a purpose in life has been recognized for centuries as a variable integral to positive health and well-being. Adults with a greater sense of purpose tend to report better emotional wellbeing (e.g., Zika & Chamberlain, 1992) and physical health (Scheier et al., 2006), experience less risk for cognitive decline later in life (Boyle, Buchman, Barnes, & Bennett, 2010), and even enjoy greater longevity (Hill & Turiano, 2014). However, it remains unclear whether purposeful individuals fare better with respect to economic outcomes; in other words, what is the literal value of having a purpose in life?

Research has demonstrated that individual dispositions can predict individual-level economic outcomes such as personal net worth and income (Judge, Livingston, & Hurst, 2012; Author Citation, under review). For instance, conscientiousness, a proclivity toward being organized and industrious, tends to predict greater financial success concurrently and in the future (Judge et al., 2012; Author Citation, under review). Central to this argument is

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the notion that our dispositional characteristics influence how we make daily and long-term decisions in ways that either facilitate or hinder our ability to accrue wealth.

Sense of purpose may be one such characteristic, given its potential to influence both building assets and reducing liabilities. For one, if purposeful individuals tend to be physically and psychologically healthier, they will incur fewer health care costs and miss work less frequently. Purposeful individuals also may be more focused on their occupational objectives, as one study suggested that individuals who rated occupational goals as more important during the transition to adulthood reported a greater sense of purpose in adulthood (Hill, Jackson, Roberts, Lapsley, & Brandenberger, 2011). If so, purposeful individuals may strive toward occupational success, which would likely increase personal income.

The possibility that purposeful individuals benefit financially over the long haul is consistent with prevailing theoretical perspectives. McKnight and Kashdan (2009) suggested that purposeful individuals differ in their resource allocation, as they focus on facilitating their efforts to achieve long-term aims. Studies show that purpose correlates positively with more expansive future time perspectives (Hicks, Trent, Davis, & King, 2012; Rappaport, Fossler, Bross, & Gilden, 1993) and with a greater sense that their time is being used effectively to fulfill downstream goals (Bond & Feather, 1988). As such, purposeful people may be more likely to save money or make investments that support downstream goals, and not squander resources based on impulsive decisions.



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However, research is needed with respect to whether purpose prospectively promotes personal wealth, as well as whether these associations are specific to purpose.

The current study examined whether sense of purpose predicts greater financial success, using the MIDUS longitudinal sample of adults (Brim, Ryff, & Kessler, 2004). We considered both household income and net worth as financial outcomes of interest. When predicting net worth (total assets minus debts), we controlled for household income levels to test the unique association purpose held on net worth, which includes incoming income. To identify the unique value of purpose, we examined whether it proved a significant predictor of net worth above and beyond the role of the Big Five personality traits, as well as general well-being (measured as life satisfaction). Furthermore, we examined age and gender as moderators of the purpose associations with economic outcomes. These interactions were tested both with cross-sectional data, as well as for the prospective associations.

# 2. Method

# 2.1. Participants

Data came from participants of the MIDUS study (Brim et al., 2004), which is a sample of 7108 participants first recruited in 1995-96 and followed up in 2004-06. At the first wave (MIDUS 1), participants were residents of the United States, aged 25-74 (M = 46, SD = 13). The average longitudinal follow-up interval was around 9 years (range: 7.8-10.4 years). At MIDUS 2, 4963 were successfully contacted to participate in another phone interview of about 30 min in length (75% total response rate – adjusting for the 8% too ill to be interviewed or deceased; see Radler & Ryff, 2010). Attrition analysis indicated that participants in the longitudinal sample reported higher purpose in life t(6289) = 8.14 (d = 0.21), higher life satisfaction t(7067) = 4.53 (d = 0.11), higher household income t(6108) = 7.75 (d = 0.20), higher net worth t(5672) = 6.05(d = 0.16), higher education t(7093) = 15.31 (d = 0.36), higher conscientiousness t(6268) = 6.17 (d = 0.16), lower neuroticism t(6262) = -2.43 (d = -0.06), lower extraversion t(6269) = -2.75(d = -0.07), and lower agreeableness, t(6269) = -4.61 (d = -0.12), all p's < 0.01. In addition, longitudinal respondents were more likely to be white  $\chi^{2}(6176) = 87.15$ , and married  $\chi^{2}(7103) =$ 61.99, but less likely to be retired  $\chi^2(7058) = 22.79$ , all *p*'s < 0.01. There was substantially missing data on economic variables likely because participants refused to provide this information or they did not know. The sample sizes for each individual analysis are provided in Tables 1 and 2. Even with such reductions, as evident in previous work with the MIDUS (Judge et al., 2012; Author Citation, under review), the current sample size is sufficient for detecting significant results when predicting economic variables in multiple regression frameworks. The sex distribution of MIDUS participants was generally balanced (53% female), and most participants were white (approximately 93%). Over two-thirds of participants had more than a high school education, and most MIDUS participants were married at MIDUS 1 (70%).

# 2.2. Measures

#### 2.2.1. Sense of purpose

*SD* = 1.21; range = 1–7;  $\alpha$  = 0.36). Though the reliability was not ideal, this measure has demonstrated predictive validity in previous work with the MIDUS sample for important outcomes such as mortality risk (Hill & Turiano, 2014).<sup>1</sup>

#### 2.2.2. Personality traits

Participants completed short measures of the Big Five traits based on Goldberg's (1992) markers (Lachman & Bertrand, 2001). Respondents were asked whether 25 adjectives described themselves from 1 (*not at all*) to 4 (*a lot*). The Big Five traits were assessed as follows: neuroticism (moody, worrying, nervous, calm (rev.),  $\alpha = 0.74$ ); extraversion (outgoing, friendly, lively, active, talkative,  $\alpha = 0.76$ ); openness (creative, imaginative, intelligent, curious, broad-minded, sophisticated, adventurous,  $\alpha = 0.77$ ); conscientiousness (organized, responsible, hardworking, careless (rev.),  $\alpha = 0.58$ ); agreeableness (helpful, warm, caring, softhearted, sympathetic,  $\alpha = 0.80$ ).

#### 2.2.3. Life satisfaction

Life satisfaction was employed as our measure of general subjective well-being. Life satisfaction was assessed by asking participants, "How satisfied with life are you now?" on a scale from 1 (*Not at all*) to 4 (*A lot*) (M = 3.53, SD = 0.69).<sup>2</sup>

#### 2.2.4. Household income

At both measurements, household income was computed (in dollars) from several different questions. Total household income included both the respondent and their spouse/partners income from wages over the past month, and over the past 12 months the total household social security, government assistance, and other sources of income. Participants responded to these questions using a rating scale that reflected different ranges of monetary values, and MIDUS used these responses to generate household income variables. Any respondent reporting over \$300,000 was capped at 300,000 to reduce the effect of outliers. The MIDUS data files do not contain information on which percentage of respondents were top-truncated to \$300,000. At MIDUS 1, mean household income was \$71,700 (SD = \$61,282), and the median was \$55,000. At MIDUS 2, mean household income was \$71,363 (SD = \$60,463), and the median was \$57,500.

#### 2.2.5. Net worth

At both measurements, participants reported the value (in dollars) for six types of assets (stocks/bonds, savings/checking accounts, retirement funds, homes/other real estate, vehicles, businesses/farms), as well as for their debts and liabilities (loans, mortgages, credit card debt) using similar rating scales as for income. Net worth was calculated by subtracting debts from assets, by the participants themselves. Negative net worth values were reset to zero before data release, due to privacy and human subjects concerns. This bottom-truncation occurred for 13% of participants at

Participants completed a three-item reduced version of the purpose in life subscale from the psychological well-being scales (Ryff, 1989). Participants reported on a scale from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) to the items: "Some people wander aimlessly through life, but I am not one of them"; "I live life one day at a time and don't really think about the future" (reversed); and "I sometimes feel as if I've done all there is to do in life" (rev.) (*M* = 5.50;

<sup>&</sup>lt;sup>1</sup> Given the low reliability of the three-item purpose in life measure at MIDUS 1, we also conducted supplementary analyses evaluating concurrent relationships between purpose and economic outcomes at MIDUS 2, which allowed us to use the longer and more reliable seven-item measure employed at that measurement occasion ( $\alpha = 0.70$ ). Supplementary Table 1 provides information on this front; in most instances, the results remained similar to those with MIDUS 1 data, though the concurrent association between purpose and MIDUS 2 income was only marginally

<sup>&</sup>lt;sup>2</sup> We also examined the association between purpose and economic outcomes when positive and negative affect also were included in the regressions, to ensure that our choice of well-being measure did not influence the findings. Though the effect sizes for purpose were reduced when including these predictors, adding these variables did not influence the significance for purpose across models. For instance, the parameter estimate for sense of purpose on MIDUS 1 income changed from B = 2578 (s.e. = 795), *p* = 0.001 (see Table 1) to B = 2419 (s.e. = 805), *p* = 0.003, when including the affect variables.

MIDUS 1 and 11% at MIDUS 2. Additionally, at MIDUS 1, if a participant had an estimated net worth higher than \$1 million, the value was set to that amount, which affected only 2% of the sample. At MIDUS 1, mean net worth was \$120,720 (SD = \$209,397), and the median was \$32,500. At MIDUS 2, in 1995 dollars, mean net worth was \$280,623 (SD = \$614,337), and the median was \$137,700.

# 2.3. Analytic plan

Regression analyses were conducted using SAS statistical software (SAS Institute Inc., 2002-2004). First, using MIDUS 1 data, we predicted initial income and net worth values from purpose in life scores, other psychosocial predictors (the Big Five traits and life satisfaction) and demographic variables (age, gender, education, race/ethnicity, marital status, and retirement status). Second, the same regression analyses were employed for predicting income and net worth at MIDUS 2, controlling for initial levels in order to predict residualized change over time. Third, age and gender were examined as moderators of the purpose associations with concurrent and prospective income and net worth, including all other previous predictors in the models. To simplify interpretations, age, education, income, purpose, personality traits, and life satisfaction were entered as standardized variables. Given the large sample size and the number of analyses, we employed a more restrictive alpha threshold of 0.01 for discussion of significance, though exact p-values are reported in the tables.

#### 3. Results

First, we examined the associations of purpose in life on concurrent household income and net worth levels. Table 1 presents the findings on this front. Sense of purpose had a significant, unique positive association with both financial outcomes. The regression coefficient for purpose in life can be interpreted with respect to a one standard deviation increase in purpose corresponding to \$2578 in greater income, and \$14,680 in greater net worth (accounting for the influence of income), controlling for the other variables in the model.

Second, we investigated the associations between purpose in life and prospective household income and net worth levels. Table 2 presents the regression analyses toward this end. Sense of purpose uniquely predicted prospective levels of income and net worth at MIDUS 2. The regression coefficient for purpose in life can be interpreted as a one standard deviation increase in purpose being associated with a unique increase of \$4461 in income and \$20,857 in net worth over time, even controlling for the other variables.

Third, we considered whether the associations between purpose on household income and net worth were moderated by age or gender. The rightmost column of Tables 1 and 2 present the analyses including both age-by-purpose and gender-bypurpose interaction terms in the regression models. Age was a significant moderator for initial net worth and the longitudinal analysis for household income (see Supplementary Fig. 1); gender failed to reach significance across models. We utilized the

#### Table 1

Regression analyses predicting concurrent income and net worth at MIDUS 1. The middle column reflects initial analyses and the right column reflects testing for moderation by age.

Income as outcome (n = 5880)p95% CIB (s.e.)p95% CIIncome as outcome (n = 5880)2578 (795)0.0011020 to 41361729 (1056)0.102-340 to 3797Age1792 (897)0.02932 to 35511769 (888)0.0498 to 3530Gender7873 (1507)<0.00114816 to 17.79416.314 (760)<0.00114825 to 17.803Education16.305 (759)<0.001-13.506 to -322.31-3505 (1590)<0.001-13.656 to -326.8Narital status-28,749 (2453)<0.001-33.557 to -23.240-28.823 (2460)<0.001-33.654 to -32.251Retirement status-28,749 (2453)<0.00123.257 to -23.240-20.01122.45 to 58.90Agreesolieness-5020 (885)<0.001-6754 to -32.266-5010 (885)<0.001-6754 to -32.26Agreesolieness-5020 (885)<0.001-2754 to 52.86-5010 (885)<0.001-258 to 27.50Conscientiousness2819 (765)<0.001248 to 43572784 (767)0.102-248 in 23.26Age by purpose1871 (1435)0.172-940 to 2513Age by purpose1871 (1435)0.192-1656 to 1164Gender by purpose1871 (1435)0.192-942 to 4684Model R <sup>2</sup> 0.23<0.00153.503 to 70.73263.433 (3103)<0.00157.349 to 69.517Gender by purpose1871 (1435)0.118-094 to 13.539Retirement status <th>Predictor</th> <th colspan="3">Initial</th> <th colspan="3">Testing moderation by age</th>	Predictor	Initial			Testing moderation by age		
$ \begin{array}{                                    $		B (s.e.)	р	95% CI	B (s.e.)	р	95% CI
Purpose in life   2578 (795)   0.001   1020 to 4136   1729 (1056)   0.102 $-340$ to 3797     Age   1732 (1507)   0.001   4218 to 10.828   7816 (1509)   0.001   4458 to 10.775     Education   16305 (759)   0.001   14816 to 17.794   16314 (760)   0.001   14858 to 17.875     Education   -3669 (2467)   0.001   -38,464 to -32,231   -35,353 (1590)   0.001   -38,470 to -32,236     Retirement status   -28,749 (2453)   0.001   -73,654 to -32,2340   -28,232 (2460)   0.001   -33,654 to -24,000     Extraversion   4116 (924)   0.001   -73,545 to -32,840   -20,010   -27,24 to 5840     Age burpose   -5020 (885)   0.001   -27,58   1246 (767)   0.102   -27,54 to -32,327     Openness   2819 (785)   0.001   1281 to 4357   2784 (785)   0.001   -256 to 513     Age burpose   -   -   -246 (719)   0.732   -1656 to 1164     Gender   9993 (5217)   0.001   9252 to 20,107   6318 (3684)   0.08	Income as outcome (n = 5880)						
Age Gender1792 (897) 1792 (897)0.029 0.00132 to 35511769 (898) 1769 (898)0.049 0.0498 to 3530 4 to 3530Gender7873 (1507)0.00144316 to 10.8287816 (1509) 40010.00114.825 to 17.803 1.828278.061 (1509)0.00114.825 to 17.803Race (0 - white; 1 - other)-8669 (2467)0.001-13.506 to -3832-8809 (2470)0.001-33.635 (1509)Marital status-25.347 (1590)0.001-33.454 to -32.231-35.353 (1590)0.001-33.645 to -32.000Life satisfaction4727 (793)0.001-722 to 53344282 (795)0.0012244 to 5840Extraversion4116 (924)-0.0012304 to 59284077 (925)-0.0012264 to 5840Agreeableness-502 (885)-0.0011281 to 43572784 (785)-0.0011245 to 4323Openness750 (880)0.394-976 to 2476786 (881)0.372-940 to 2513Age by purpose246 (719)0.732-1656 to 1164Gender by purpose0.23246 (719)0.12Age by purpose in life14.680 (2789)<0.001	Purpose in life	2578 (795)	0.001	1020 to 4136	1729 (1056)	0.102	-340 to 3797
Gender   7873 (1507)   <0.001   4918 to 10,828   7816 (1509)   <0.001   4828 to 10,775     Bace (0 - white; 1 - other)   -8669 (2467)   <0.001	Age	1792 (897)	0.029	32 to 3551	1769 (898)	0.049	8 to 3530
Education16,305 (759)<0.00114,816 to 17,79416,314 (760)<0.00114,825 to 17,803Race (0 - white; 1 - other)-8669 (2467)<0.001	Gender	7873 (1507)	< 0.001	4918 to 10,828	7816 (1509)	< 0.001	4858 to 10,775
Race (0 - white; 1 - other) $-8669$ (2467)<0.001 $-13,606$ to $-332$ $-8809$ (2470)<0.001 $-13,650$ to $-3968$ Marital status $-28,749$ (2453)<0.001	Education	16,305 (759)	< 0.001	14,816 to 17,794	16,314 (760)	< 0.001	14,825 to 17,803
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Race (0 – white; 1 – other)	-8669 (2467)	< 0.001	-13,506 to -3832	-8809 (2470)	< 0.001	-13,650 to -3968
Retirement status -28,749 (2453) <0.001	Marital status	-35,347 (1590)	< 0.001	-38,464 to -32,231	-35,353 (1590)	< 0.001	-38,470 to -32,236
Life satisfaction 4278 (793) <0.001	Retirement status	-28,749 (2453)	< 0.001	-33,557 to -23,940	-28,823 (2460)	< 0.001	-33,645 to -24,000
Extraversion   4116 (924)   <0.001   2304 to 5928   4077 (925)   <0.001   2263 to 5890     Agreeableness   -5020 (885)   <0.001	Life satisfaction	4278 (793)	< 0.001	2722 to 5834	4282 (795)	< 0.001	2724 to 5840
Agreeableness -5020 (885) <0.001 -6754 to -3286 -5010 (885) <0.001 -6745 to -3275   Neuroticism 1254 (767) 0.102 -249 to 2758 1246 (767) 0.105 -258 to 2750   Conscientiousness 2819 (785) <0.001	Extraversion	4116 (924)	< 0.001	2304 to 5928	4077 (925)	< 0.001	2263 to 5890
Neuroticism1254 (767)0.102-249 to 27581246 (767)0.105-258 to 2750Conscientiousness2819 (785)<0.001	Agreeableness	-5020 (885)	< 0.001	-6754 to -3286	-5010 (885)	< 0.001	-6745 to -3275
Conscientiousness   2819 (785)   <0.001   1281 to 4357   2784 (785)   <0.001   1245 to 4323     Openness   750 (880)   0.394   -976 to 2476   786 (881)   0.372   -940 to 2513     Age by purpose   -   -   -   -   -   -   -   -940 to 2513     Gender by purpose   -   -   -   -   -246 (719)   0.732   -1656 to 1164     Gender by purpose   -   0.23   -   0.23   -   -     Net worth as outcome (n = 5472)   -	Neuroticism	1254 (767)	0.102	-249 to 2758	1246 (767)	0.105	-258 to 2750
Openness   750 (880)   0.394   -976 to 2476   786 (881)   0.372   -940 to 2513     Age by purpose   -   -246 (719)   0.732   -1656 to 1164     Gender by purpose   -   0.23   -940 to 2513   -942 to 4684     Model R <sup>2</sup> 0.23   0.23   -942 to 4684   -942 to 4684     Net worth as outcome (n = 5472)   -   0.23   -940 to 13,539     Age   64,617 (3120)   <0.001	Conscientiousness	2819 (785)	< 0.001	1281 to 4357	2784 (785)	< 0.001	1245 to 4323
Age by purpose - -246 (719) 0.732 -1656 to 1164   Gender by purpose - - 1871 (1435) 0.192 -942 to 4684   Model R <sup>2</sup> 0.23 0.23 0.23 0.23   Net worth as outcome (n = 5472) Purpose in life 14,680 (2789) <0.001 9252 to 20,107 6318 (3684) 0.086 -904 to 13,539   Age 64,617 (3120) <0.001 58,503 to 70,732 63,433 (3103) <0.001 57,349 to 69,517   Gender 9993 (5217) 0.056 -234 to 20,219 8126 (5193) 0.118 -2054 to 18,307   Education 22,678 (2727) <0.001 17,332 to 28,025 22,887 (2711) <0.001 -52,940 to -19536   Marital status 53,537 (8713) <0.001 -26,037 to 3558 -14281 (5698) 0.012 -25,453 to -3110   Retirement status 53,537 (8713) <0.001 36,456 to 70,618 58,483 (8683) <0.001 41,460 to 75,506   Income 68,862 (2757) <0.001 63,457 to 74,267 68,874 (2741) <0.001 63,501 to 74,248   Life satisfaction 69 (2802) .0.980 <th< td=""><td>Openness</td><td>750 (880)</td><td>0.394</td><td>-976 to 2476</td><td>786 (881)</td><td>0.372</td><td>-940 to 2513</td></th<>	Openness	750 (880)	0.394	-976 to 2476	786 (881)	0.372	-940 to 2513
Gender by purpose- $1871 (1435)$ $0.192$ $-942 \text{ to } 4684$ Model $R^2$ $0.23$ $0.23$ $0.23$ Net worth as outcome (n = 5472)Purpose in life $14,680 (2789)$ $<0.001$ $9252 \text{ to } 20,107$ $6318 (3684)$ $0.086$ $-904 \text{ to } 13,539$ Age $64,617 (3120)$ $<0.001$ $58,503 \text{ to } 70,732$ $63,433 (3103)$ $<0.001$ $57,349 \text{ to } 69,517$ Gender $9993 (5217)$ $0.056$ $-234 \text{ to } 20,219$ $8126 (5193)$ $0.118$ $-2054 \text{ to } 18,307$ Education $22,678 (2727)$ $<0.001$ $-7,322 \text{ to } 28,025$ $22,887 (2711)$ $<0.001$ $17,572 \text{ to } 28,201$ Race (0 - white; 1 - other) $-35,872 (8564)$ $<0.001$ $-52,661 \text{ to } -3558$ $-36,238 (8520)$ $<0.001$ $-52,940 \text{ to } -19536$ Marital status $-14,797 (5733)$ $0.010$ $-26,037 \text{ to } -3558$ $-14281 (5698)$ $0.012$ $-2543 \text{ to } -3110$ Retirement status $53,537 (8713)$ $<0.001$ $-36,645 \text{ to } 70,618$ $58,483 (8683)$ $<0.001$ $41,460 \text{ to } 75,506$ Income $68,862 (2757)$ $<0.001$ $63,457 \text{ to } 74,267$ $68,874 (2741)$ $<0.001$ $63,551 \text{ to } 43,267$ Retirement status $53,537 (8713)$ $0.001$ $-7,621 \text{ to } -5608$ $-12,172 (3046)$ $0.011$ $-18,143 \text{ to } 66213$ Income $68,862 (2757)$ $0.001$ $-17,621 \text{ to } -5608$ $-12,172 (3046)$ $0.001$ $-18,143 \text{ to } 6201$ Retirement status $3546 (3197)$ $0.254$ <th< td=""><td>Age by purpose</td><td>-</td><td></td><td></td><td>-246 (719)</td><td>0.732</td><td>-1656 to 1164</td></th<>	Age by purpose	-			-246 (719)	0.732	-1656 to 1164
Model R <sup>2</sup> 0.23   0.23     Net worth as outcome (n = 5472):   Purpose in life   14,680 (2789)   <0.01	Gender by purpose	-			1871 (1435)	0.192	-942 to 4684
Net worth as outcome (n = 5472)Purpose in life14,680 (2789)<0.001	Model R <sup>2</sup>	0.23			0.23		
Purpose in life14,680 (2789)<0.0019252 to 20,1076318 (3684)0.086-904 to 13,539Age64,617 (3120)<0.001	Net worth as outcome $(n = 5472)$						
Age64,617 (3120)64,00158,503 to 70,73263,433 (3103)64,00157,349 to 69,517Gender9993 (5217)0.056-234 to 20,2198126 (5193)0.118-2054 to 18,307Education22,678 (2727)<0.001	Purpose in life	14 680 (2789)	<0.001	9252 to 20107	6318 (3684)	0.086	-904 to 13 539
Gender9993 (5217)0.056-234 to 20,2198126 (5193)0.118-2054 to 18,307Education22,678 (2727)<0.001	Age	64.617 (3120)	< 0.001	58.503 to 70.732	63.433 (3103)	< 0.001	57.349 to 69.517
Education 22,678 (2727) <0.001	Gender	9993 (5217)	0.056	-234 to 20 219	8126 (5193)	0.118	-2054 to 18 307
Race (0 - white; 1 - other) -35,872 (8564) <0.001	Education	22,678 (2727)	<0.001	17 332 to 28 025	22,887 (2711)	<0.001	17 572 to 28 201
Marital status -14,797 (5733) 0.010 -26,037 to -3558 -14281 (5698) 0.012 -25,453 to -3110   Retirement status 53,537 (8713) <0.001	Race (0 – white: 1 – other)	-35.872 (8564)	< 0.001	-52.661 to $-3558$	-36.238 (8520)	< 0.001	-52.940 to $-19536$
Retirement status 53,537 (8713) <0.001	Marital status	-14.797 (5733)	0.010	-26.037 to -3558	-14281 (5698)	0.012	-25.453 to $-3110$
Income 68,862 (2757) <0.001	Retirement status	53,537 (8713)	< 0.001	36.456 to 70.618	58,483 (8683)	< 0.001	41.460 to 75.506
Life satisfaction 69 (2802) 0.980 -3585 to 8337 1148 (2788) 0.681 -4318 to 6613   Extraversion 3646 (3197) 0.254 -2620 to 9913 4347 (3180) 0.172 -1887 to 10,581   Agreeableness -11,614 (3197) <0.001	Income	68.862 (2757)	< 0.001	63.457 to 74.267	68.874 (2741)	< 0.001	63,501 to 74,248
Extraversion   3646 (3197)   0.254   -2620 to 9913   4347 (3180)   0.172   -1887 to 10,581     Agreeableness   -11,614 (3197)   <0.001	Life satisfaction	69 (2802)	0.980	-3585 to 8337	1148 (2788)	0.681	-4318 to 6613
Agreeableness -11,614 (3197) <0.001	Extraversion	3646 (3197)	0.254	-2620 to 9913	4347 (3180)	0.172	-1887 to 10.581
Neuroticism   -1869 (2656)   0.482   -7076 to 3337   -2121 (2640)   0.422   -7296 to 3054     Conscientiousness   6695 (2720)   0.014   1363 to 12,028   6662 (2705)   0.014   1360 to 11,964     Openness   2376 (3040)   0.435   -3585 to 8337   2717 (3024)   0.369   -3212 to 8645     Age by purpose   -   19,991 (2504)   <0.001   15,082 to 24,900     Gender by purpose   -   10,768 (4957)   0.030   1050 to 20,485	Agreeableness	-11.614 (3197)	< 0.001	-17.621 to -5608	-12.172 (3046)	< 0.001	-18.143 to -6201
Conscientiousness   6695 (2720)   0.014   1363 to 12,028   6662 (2705)   0.014   1360 to 11,964     Openness   2376 (3040)   0.435   -3585 to 8337   2717 (3024)   0.369   -3212 to 8645     Age by purpose   -   19,991 (2504)   <0.001	Neuroticism	-1869 (2656)	0.482	-7076 to 3337	-2121 (2640)	0.422	-7296 to 3054
Openness   2376 (3040)   0.435   -3585 to 8337   2717 (3024)   0.369   -3212 to 8645     Age by purpose   -   19,991 (2504)   <0.001	Conscientiousness	6695 (2720)	0.014	1363 to 12,028	6662 (2705)	0.014	1360 to 11,964
Age by purpose   -   19,991 (2504)   <0.001   15,082 to 24,900     Gender by purpose   -   10,768 (4957)   0.030   1050 to 20,485	Openness	2376 (3040)	0.435	-3585 to 8337	2717 (3024)	0.369	-3212 to 8645
Gender by purpose   -   10,768 (4957)   0.030   1050 to 20,485     Model JP2   0.30   0.030   1050 to 20,485	Age by purpose	-			19,991 (2504)	<0.001	15,082 to 24,900
M-11p <sup>2</sup> 0.20	Gender by purpose	-			10,768 (4957)	0.030	1050 to 20,485
Model κ <sup>-</sup> 0.28 0.29	Model R <sup>2</sup>	0.28			0.29		

#### Table 2

Longitudinal regression analyses predicting income net worth at MIDUS 2, controlling for initial levels. The middle column reflects initial analyses and the right column reflects testing for moderation by age.

Predictor	Initial			Testing moderation by age		
	B (s.e.)	р	95% CI	B (s.e.)	р	95% CI
Income as outcome (n = 3594) Purpose in life Age Gender Education Race (0 - white; 1 - other) Marital status Retirement status Life satisfaction Extraversion Agreeableness Neuroticism Conscipationenees	4461 (977) -14,276 (1084) 5609 (1801) 12,982 (935) -7507 (3495) -7254 (2043) -4155 (2976) 2580 (990) 2117 (1092) -2127 (1039) 1343 (917) 16 (962)	<0.001 <0.001 <0.001 <0.001 0.032 <0.001 0.163 0.010 0.053 0.041 0.143 0.026	2546 to 6376 -16,401 to -12,151 2079 to 9140 11,149 to 14,815 -14,361 to -654 -11,260 to -3248 -9991 to 1680 639 to 4520 -24 to 4259 -4163 to -90 -455 to 3141 1860 to 1902	5535 (1283) -13,865 (1087) 5957 (1810) 12,911 (934) -7715 (3491) -7315 (2040) -5002 (2981) 2388 (989) 1947 (1091) -2003 (1038) 1347 (915) 52 (061)	<0.001 <0.001 0.001 <0.001 0.027 <0.001 0.093 0.016 0.075 0.054 0.141 0.057	3019 to 8051 -15,997 to -11,733 2409 to 9506 11,080 to 14,742 -14,560 to -870 -11,315 to -3315 -10,847 to 842 449 to 4328 -193 to 4087 -4037 to 31 -447 to 3142 1024 to 1822
Openness Age by purpose	-482 (1059) -	0.988 0.649 -	-2558 to 1593	-52 (961) -571 (1058) -3476 (937)	0.590 <0.001	-1934 to 1833 -2645 to 1504 -5314 to -1639
Gender by purpose Model R <sup>2</sup>	- 0.33	-		-/96 (1/81) 0.33	0.655	-4287 to 2696
Net worth as outcome (n = 2889) Purpose in life Age Gender Education Race (0 – white; 1 – other) Marital status Retirement status Income Life satisfaction Extraversion Agreeableness Neuroticism Conscientiousness Openness Age by purpose	20,857 (4974) 22,487 (4974) 18,239 (9036) 32,765 (4754) -56,016 (18,074) 7237 (10,262) -41,661 (15,766) 55,384 (4982) 11,242 (5075) -134 (5452) -134 (5452) -18,012 (5181) 4008 (4572) 7272 (4867) -850 (5292)	<0.001 <0.001 0.044 <0.001 0.002 0.481 0.008 <0.001 0.027 0.980 <0.001 0.381 0.135 0.872	11,103 to 30,610 10,813 to 33,652 522 to 35,956 27,945 to 46,586 -91,456 to $-20,577-12,885$ to 27,359 -72,576 to $-10,74645,617 to 65,1521291 to 21,193-10,824$ to 10,557 -28,172 to $-7853-4956$ to 12,973 -2272 to 16,816 -11,227 to 9526	14,715 (6710) 22,571 (5881) 16,556 (9124) 37,493 (4757) -56,683 (18,083) 7190 (10,262) -42,178 (15,824) 55,324 (4736) 11,509 (5086) -110 (5456) -18,130 (5184) 4000 (4573) 6962 (4872) -494 (5301) -1254 (4985)	0.028 <0.001 0.070 <0.001 0.002 0.484 0.008 <0.001 0.024 0.984 <0.001 0.382 0.153 0.926 0.801	1558 to 27,872 11,040 to 34,102 -1334 to 34,445 28,165 to 46,821 -92,140 to $-21,225-12,932$ to 27,313 -73,207 to $-11,15045,552 to 65,0951537 to 21,481-10,809$ to 10,588 -28,295 to $-7966-4966$ to 12,966 -2591 to 16,516 -10,888 to 9900 -11.028 to 8520
Gender by purpose Model R <sup>2</sup>	- - 0.50			- 12,736 (9080) 0.50	0.161	-5067 to 30,540

Note: Models included initial levels on the financial outcomes as predictors, and  $r^2$  values reflect the inclusion of this predictor.

Johnson-Neyman technique, a procedure allowing researchers to identify at which levels of the moderator the associations occur, to explore the associations between purpose and economic outcomes at different ages. With respect to initial net worth, for adults aged 25-33 (-0.95 SD on age and below), there was a weak negative association between purpose and net worth such that younger individuals with higher purpose scores had lower net worth. Between ages 34-42 (-0.35 to -0.94 SD on age), the association of purpose on net worth was non-significant. For adults older than 42 though, the association was always positive and increased in strength with age. The direction of age moderation was reversed though for longitudinal analyses with household income. Specifically, the association between purpose and prospective household income was statistically significant and positive for adults who started the study between the ages of 20-35, but was not significant for those who started the study older than 35.

#### 4. Discussion

Research has consistently demonstrated the benefits of having a purpose in life for healthy development and aging (see Ryff, 2014 for a review). The current study extended this work into the economic domain by examining the role of purpose on household income and net worth concurrently and prospectively. Above and beyond known predictors of financial success (e.g., demographics, personality traits), as well as conceptual correlates of purpose (well-being), individuals who reported a higher sense of purpose in life tended both to have higher household income and net worth initially, as well as greater increases on these outcomes over the following decade. These analyses also rule out several alternative explanations, such as the role of Big Five personality traits or well-being.

Instead, the picture painted is that having a purpose in life may hold real economic consequences. Having a purpose appears integrally linked to greater agency and engagement in daily life (Scheier et al., 2006), as well as a number of positive health outcomes (Boyle, Barnes, Buchman, & Bennett, 2009; Hill & Turiano, 2014; Scheier et al., 2006). As such, the value of purpose for financial success may result from the greater capability and propensity for purposeful individuals to pursue their long-term goals, which in turn promotes the accrual of assets. If so, one might anticipate a relatively long time course for the financial benefits of a sense of purpose, which is reflected in the age interactions found for initial net worth and longitudinal income levels. Initially, the association between net worth and purpose was stronger for older adults, presumably because these individuals had experienced more years during which to accrue the benefits of purpose. However, the association between purpose and household income was stronger longitudinally for younger adults, suggesting that a sense of purpose benefited them more over time, compared to older adults. These findings suggest that purposefulness may be most beneficial during the transition between young and middle adulthood, during which individuals are more likely to attain greater occupational success. That said, as this interaction effect was not consistent across all models in Tables 1 and 2, future research is needed to better understand the specific factors (and timing of those factors) involved in why purposeful individuals appear better at financial accrual. Little support though was found that the benefits of purpose differ between males and females (though see Supplementary Table 1).

The current work though is not without its limitations, which should provide avenues for future research. First, economic data in MIDUS was assessed via self-report, and thus findings should be supplemented with studies that include objective markers of financial status. In addition, work is needed to examine whether these associations replicate during alternative economic climates. Second, for the sake of increasing participant privacy, MIDUS participants' data were bottom- and top-truncated, and participants were asked only to report into which income ranges they fell instead of specific values. As such, more continuous data would be preferable. However, these truncations did not affect a large portion of the sample, and if anything, likely served to attenuate the effect sizes found in the current work. Third, MIDUS participants only were asked to report on their sense of purpose, and did not provide information on the content of their purposes. In particular, it would be of interest to see whether financiallyoriented individuals may reap greater benefits to their net worth than those more prosocially- or artistically-oriented. Fourth, it is essential to replicate these findings in other large-scale population samples, to ensure these findings were not unique to MIDUS. Moreover, it is important to replicate these findings with longer measures of sense of purpose, to deal with the issues of reliability, though the consistent cross-sectional findings across measurement occasions suggest the replicability of the results (see Supplementary Table 1). These caveats aside, the current findings provide evidence that even when it comes to finances, finding a purpose in life appears to be well worth it.

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## Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.jrp.2016.07.003.

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